



# Loudoun County Board of Supervisors

## Water Quality Protection Initiative

May 12, 2009  
Loudoun Horse Association

# Background Information

- **Board held Committee of the Whole on December 1<sup>st</sup>**
  - Presentation from County Staff on Several Options
  - Presentation from Chesapeake Bay Local Asst. Division
  - Presentation from Fairfax County
- **Information Requested for February 17 Meeting**
  - Comparison Matrix
  - Comparison Maps
  - Recommendations

# Options Presented to the BOS

- **Existing Regulations (FOD, SCVB, Steep Slopes)**
- **Former RSCOD**
  - Changes would be necessary to parameters as available data has changed (shown as previously mapped)
- **Chesapeake Bay Act Option 1**
  - 100' buffer of Perennial Streams and connected wetlands
- **Chesapeake Bay Act Option 2**
  - 100' buffer of Perennial Streams, connected wetlands, and Floodplain
- **Chesapeake Bay Act Option 3**
  - 100' buffer of Perennial Streams, connected wetlands, Floodplains, and adjacent of Steep Slopes (>25%)

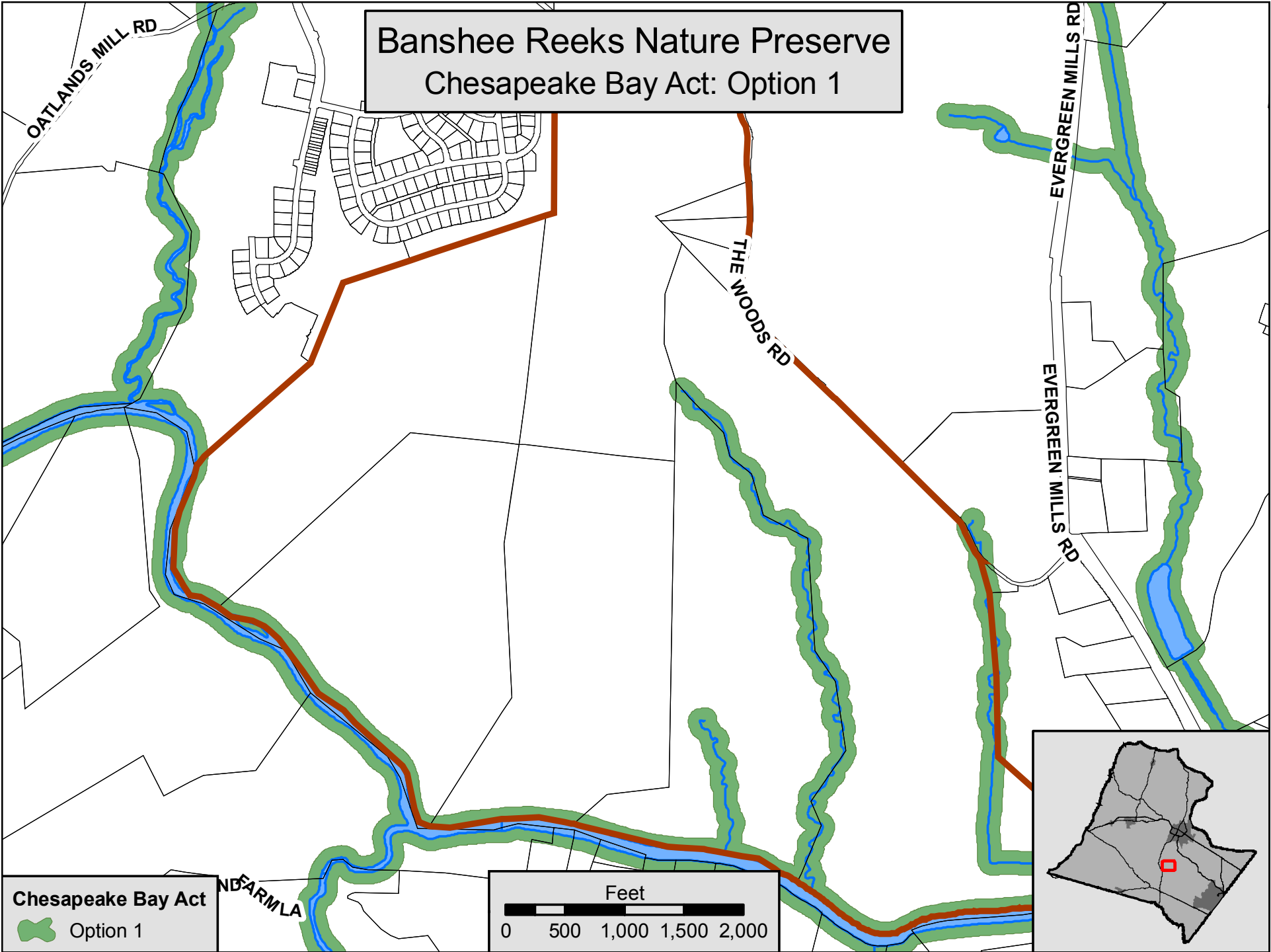


# Comparison Maps

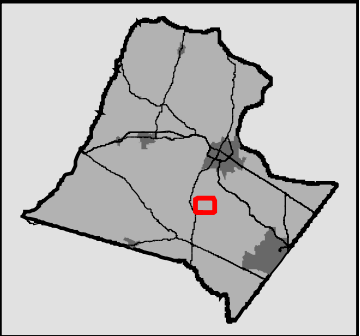
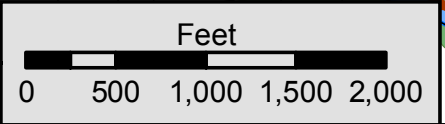
- **County-owned Banshee Reeks property**
- **Depicts:**
  - **Chesapeake Bay Options 1, 2 and 3**
  - **Previous RSCOD**

# Banshee Reeks Nature Preserve

## Chesapeake Bay Act: Option 1

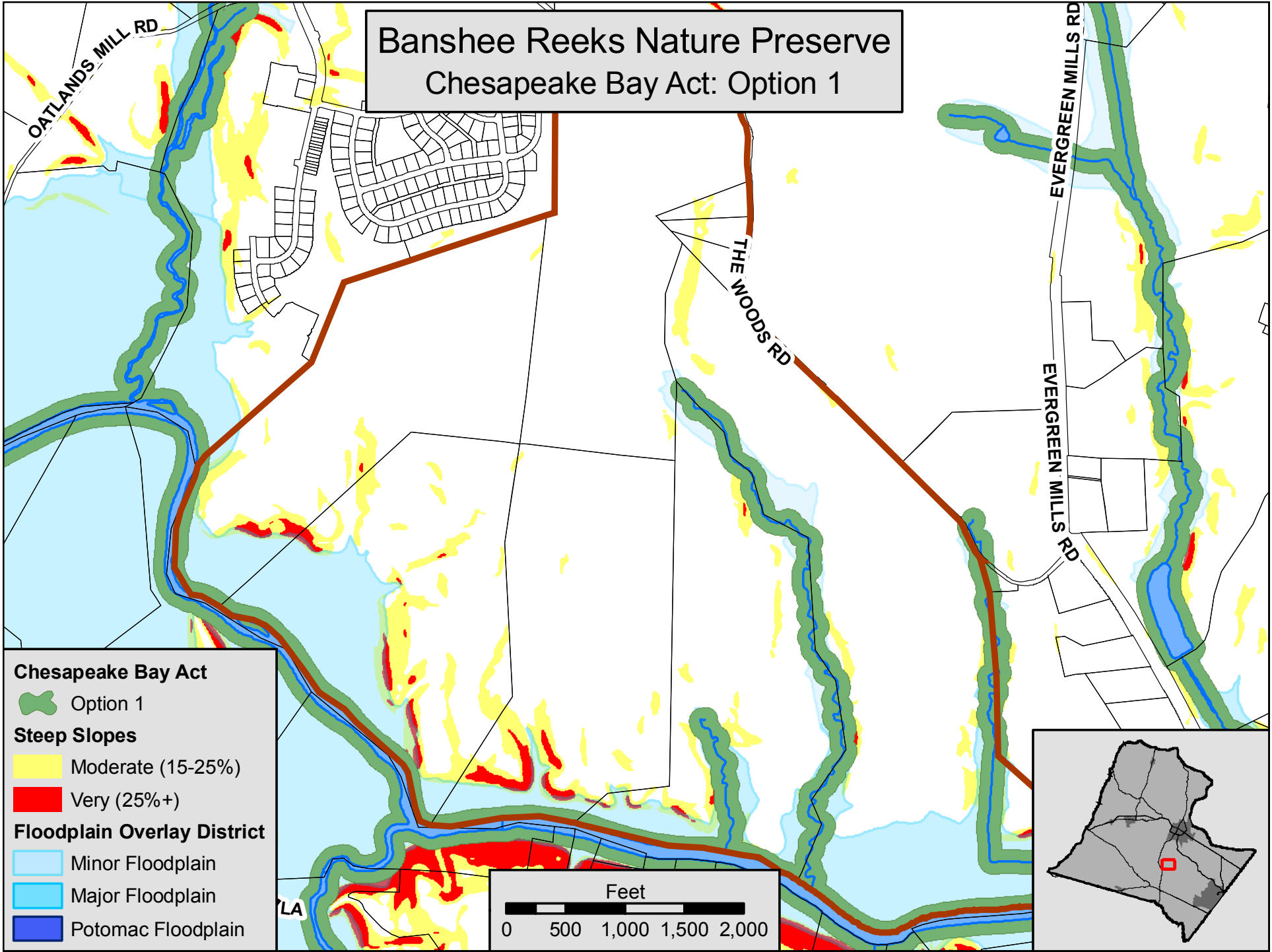


Chesapeake Bay Act  
Option 1

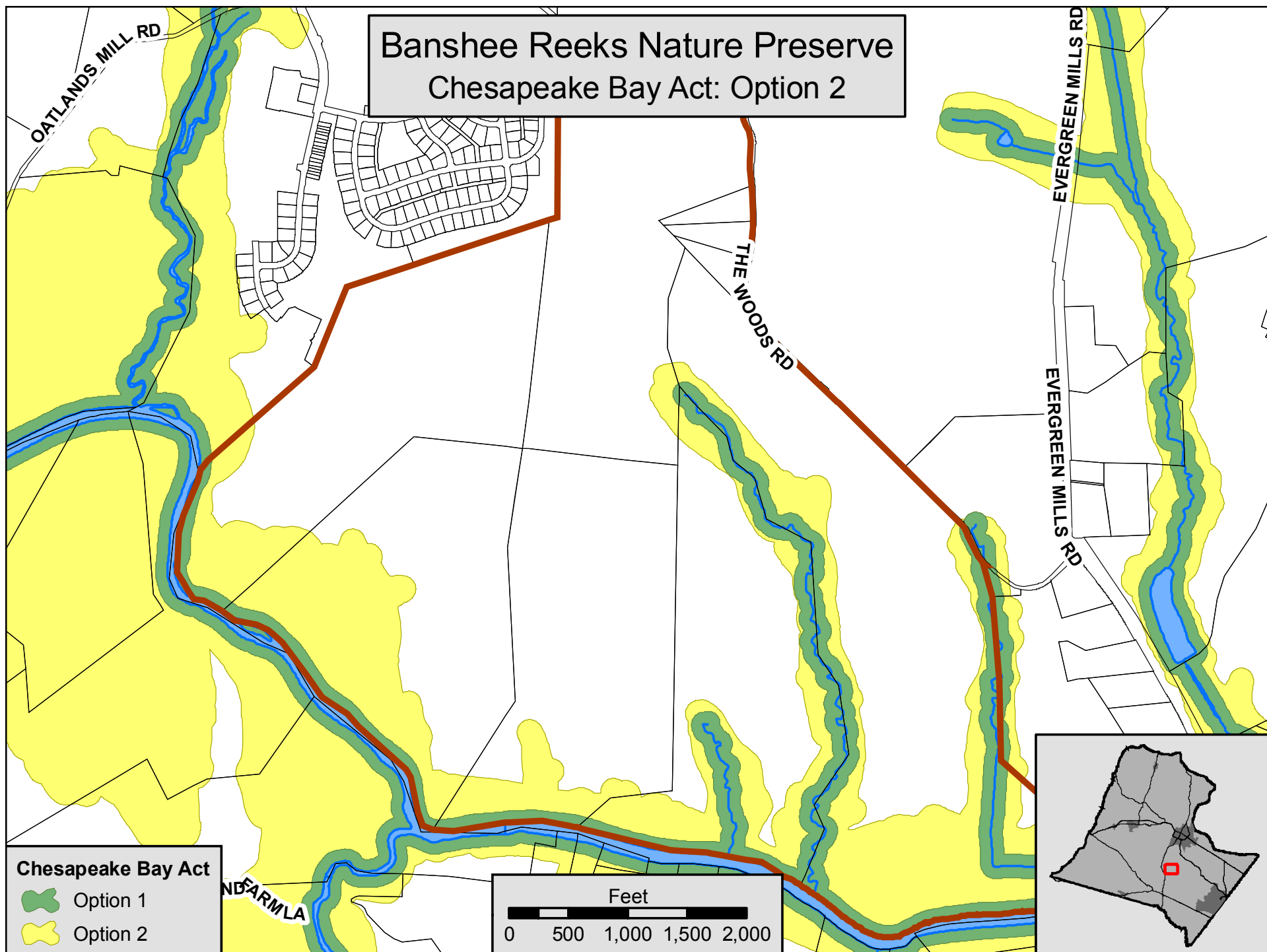


# Banshee Reeks Nature Preserve

## Chesapeake Bay Act: Option 1

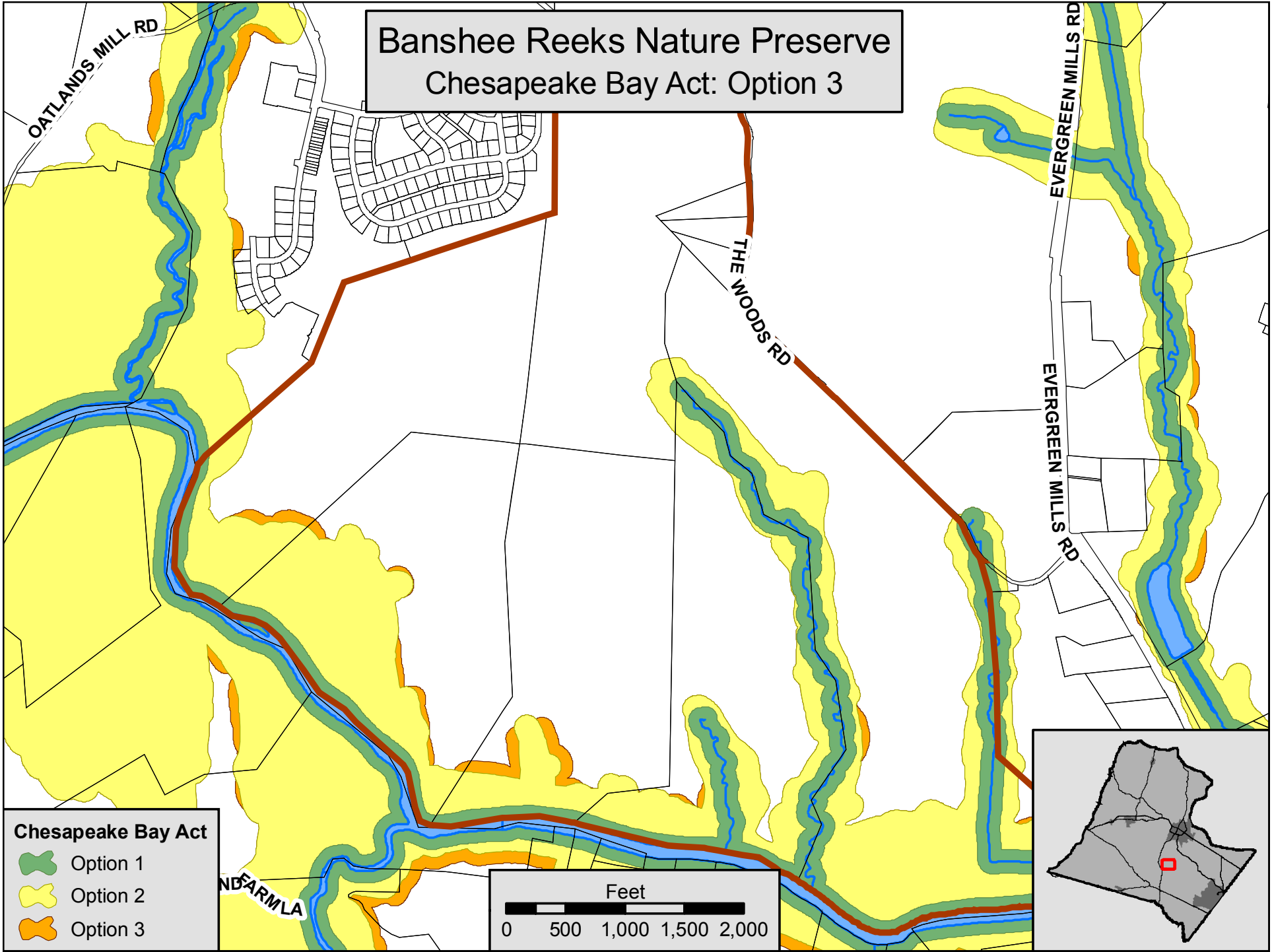


## Banshee Reeks Nature Preserve Chesapeake Bay Act: Option 2



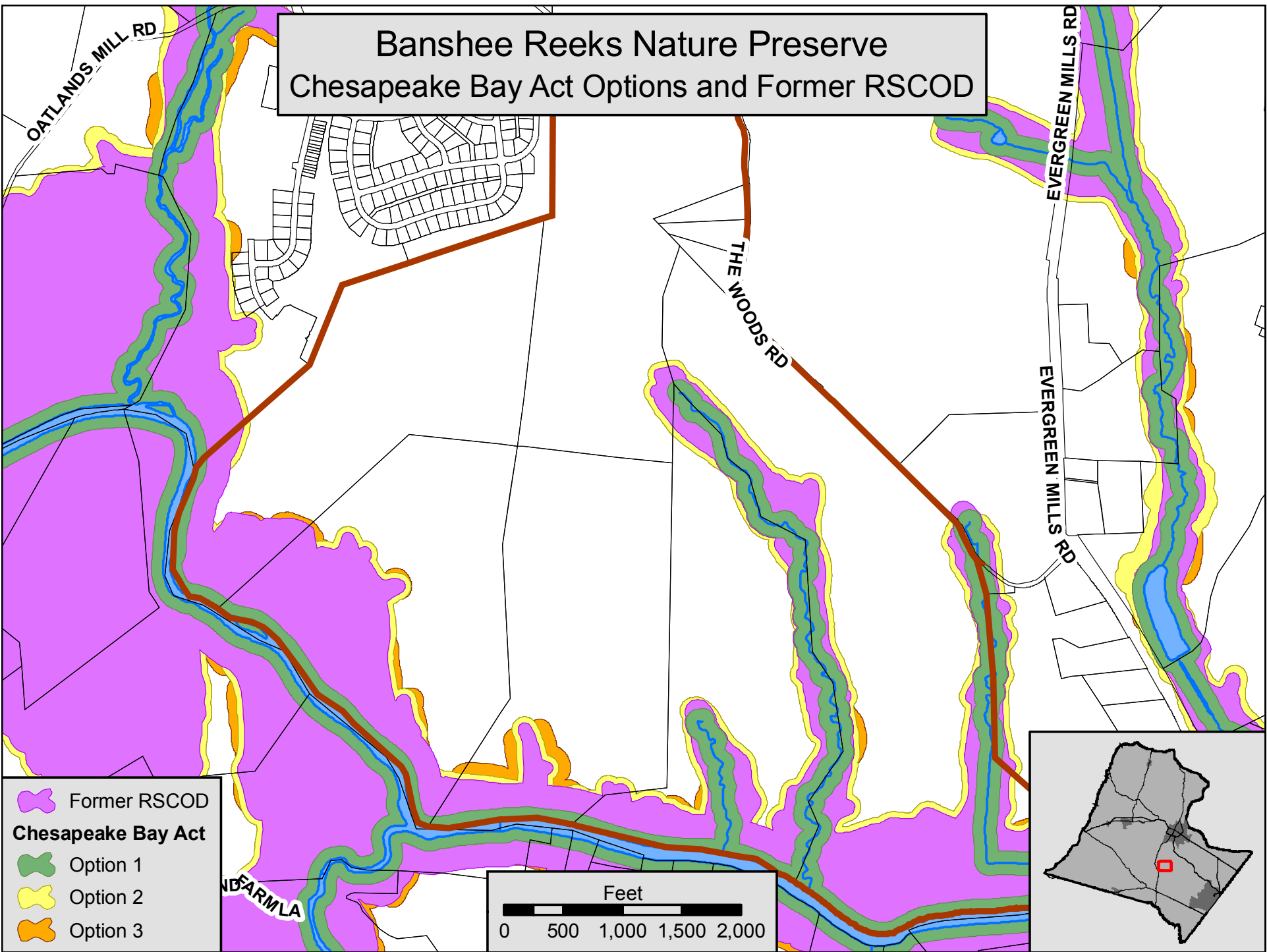
# Banshee Reeks Nature Preserve

## Chesapeake Bay Act: Option 3





# Banshee Reeks Nature Preserve Chesapeake Bay Act Options and Former RSCOD



# Staff Recommendation to the BOS

- **Chesapeake Bay Option 1 for Resource Protection Area (RPA)**
  - Most complementary to existing regulations
  - Most commonly adopted RPA among 84 Tidewater localities
  - Regional Consistency
  - Can be mapped easily
  - Can be adopted most quickly
  - Can be implemented with existing staff
  - Significant assistance and resources from CBLAD
  - Least impact to Ag uses among Ches Bay Options

# Bay Act Performance Criteria

- **Staff Recommended that the BOS Not Adopt**
  - **Soil and Water Quality Conservation Assessment Requirements for Agricultural Activities**
    - Assessments provided by local Soil and Water Conservation District; workload to process all properties would be unmanageable in a reasonable timeframe
    - If adopted, would apply to all agriculturally zoned properties and lands with active agricultural operations



# What is the Purpose of a 100' Vegetated Buffer?

**Eliminates:**

- **75% of the sediment load**  
**and**
- **40% of the nutrient load**



# Agricultural Activities in the RPA (100' Buffer)

- On agricultural lands the buffer shall be managed to prevent concentrated flows of surface water from breaching the buffer.
- Existing vegetation (trees, shrubs, forage legumes, and grass) should be left in place to meet the buffer requirement.
- However, measures may be taken to prevent noxious weeds from invading the buffer (e.g., bushhogging twice a year or harvesting hay).

# **Agricultural Activities in the RPA (100' Vegetated Buffer)**

**Ag Activities may encroach into the RPA buffer:**

- **Agricultural activities (not including structures) can encroach 50-feet into the buffer if an assessment is conducted and the most important E&S or nutrient management Best Management Practice (BMP) (according to SWCD) is implemented**

**or**

- **Agricultural activities (not including structures) can encroach 75-feet into the buffer when agricultural BMPs which address erosion and sediment control, nutrient management and pest management are implemented**

# Cropland

- 50-foot cropland encroachment with implementation of erosion control BMP (e.g., no-till planting, stripcropping)
- 50-foot cropland encroachment with implementation of nutrient management BMP (e.g. nutrient management plan)
- 75-foot cropland encroachment with implementation of erosion control, nutrient management, and pest management BMPs.



# Pastureland

- **Grazing is permitted within the buffer as long as permanent vegetative cover is maintained.**
- **Grass within the buffer must be maintained in a manner that establishes permanent vegetative cover (e.g., 90% vegetative cover, equally distributed, and established to a minimum height of 2 inches).**



# Pastureland

- In the event that permanent vegetative cover is not able to be achieved, an authorized encroachment accompanied by the associated BMPs may be required.
- Grazing land BMPs include grazing land protection, alternative water systems, and rotational grazing.
- Where fencing is determined to be the appropriate BMP, it must be established at a minimum distance of 25 feet from the stream.

# Agricultural Examples

- **Sites suggested by Ag Agencies and cooperators**



# Cox Farm

## Chesapeake Bay Act Research

HIBLER RD

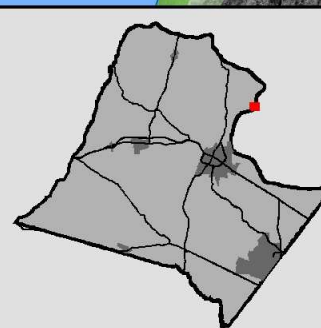
Potomac River

### Chesapeake Bay Act

- Option 1
- Option 1: 50' Reduction

Feet

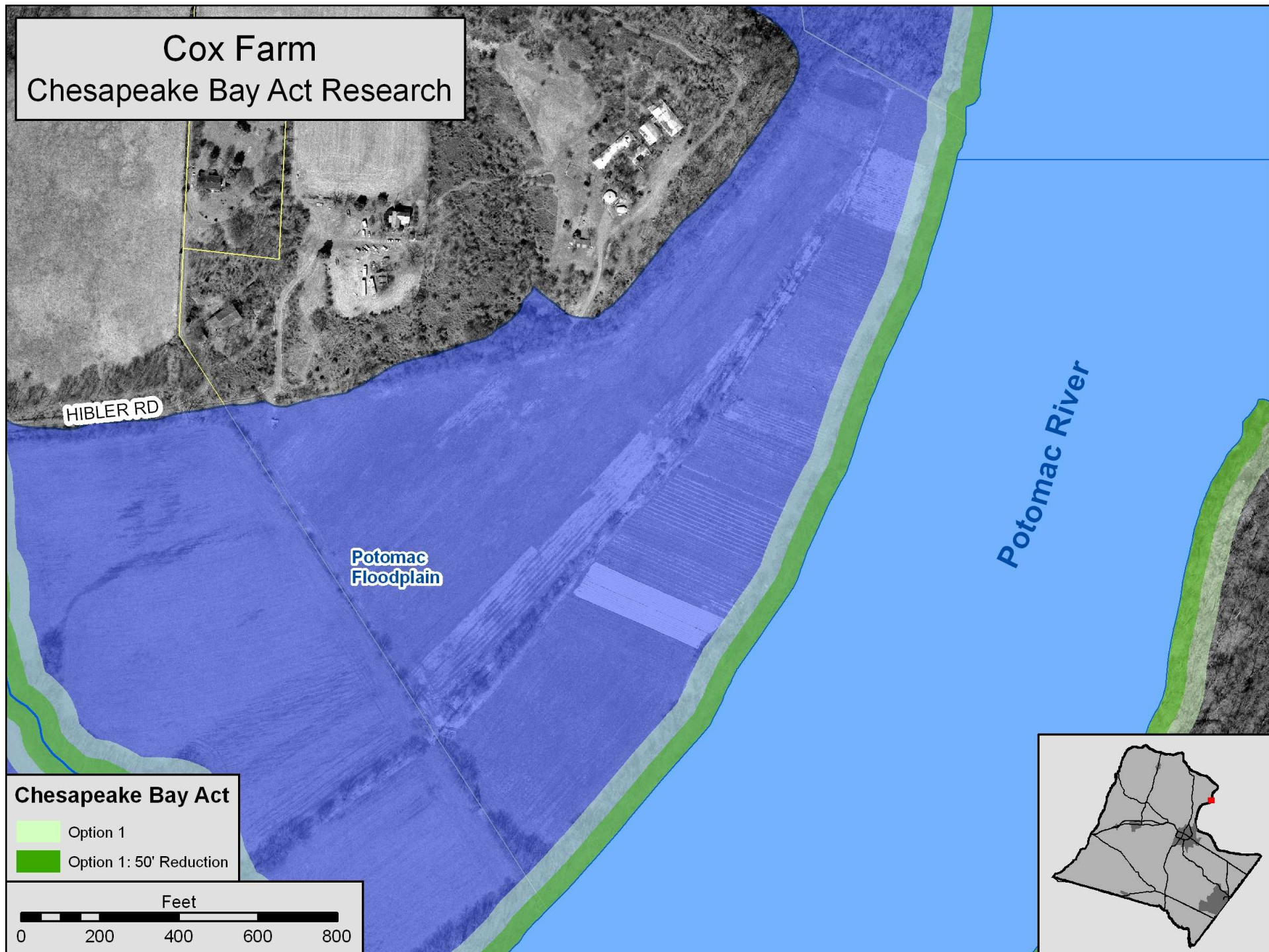
0 200 400 600 800





# Cox Farm

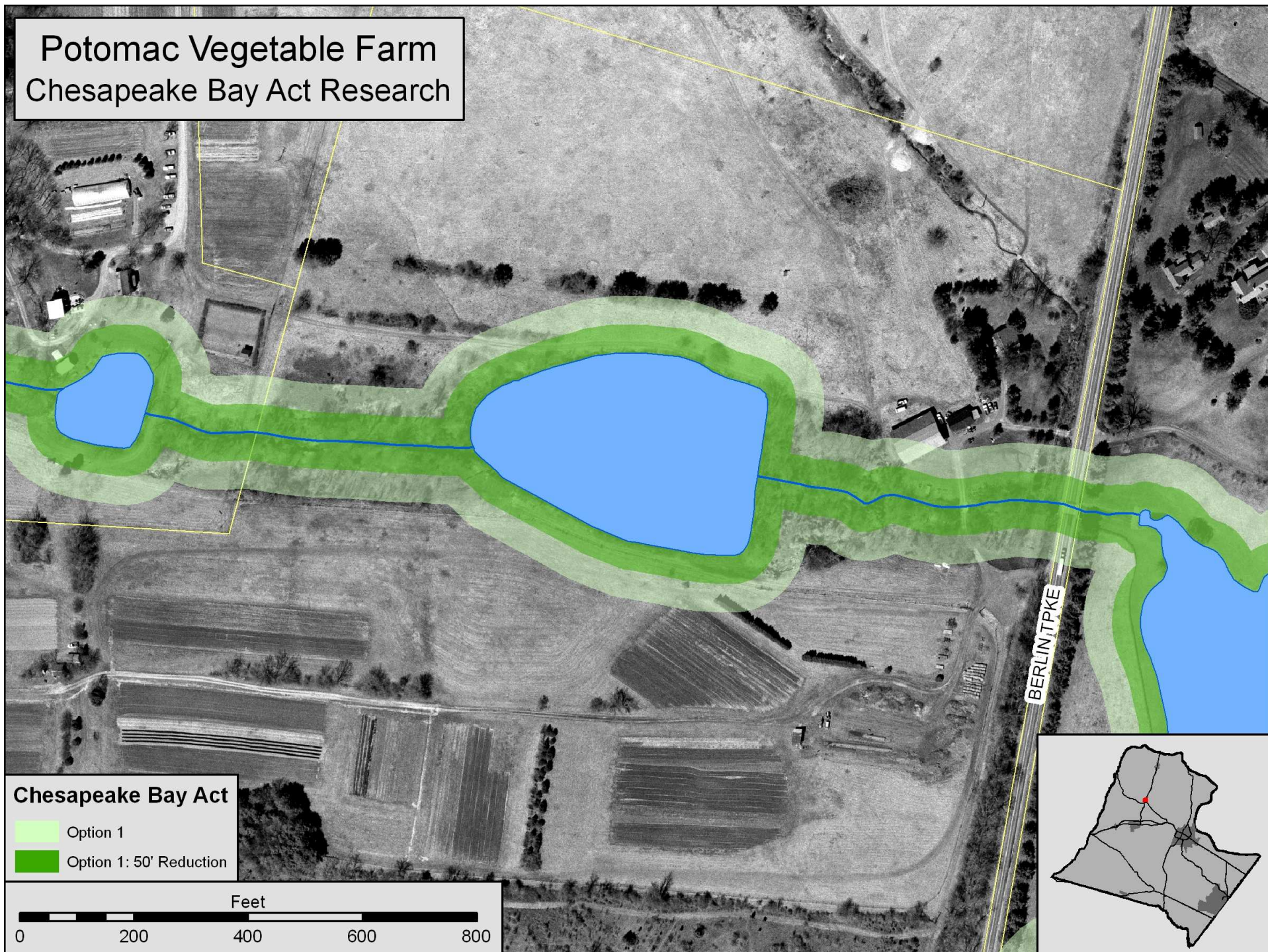
## Chesapeake Bay Act Research





# Potomac Vegetable Farm

## Chesapeake Bay Act Research





# Potomac Vegetable Farm

## Chesapeake Bay Act Research





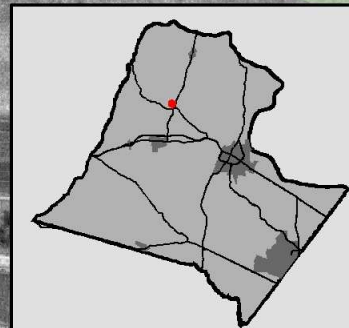
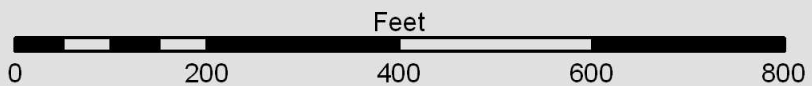
# Planck Farm

## Chesapeake Bay Act Research



### Chesapeake Bay Act

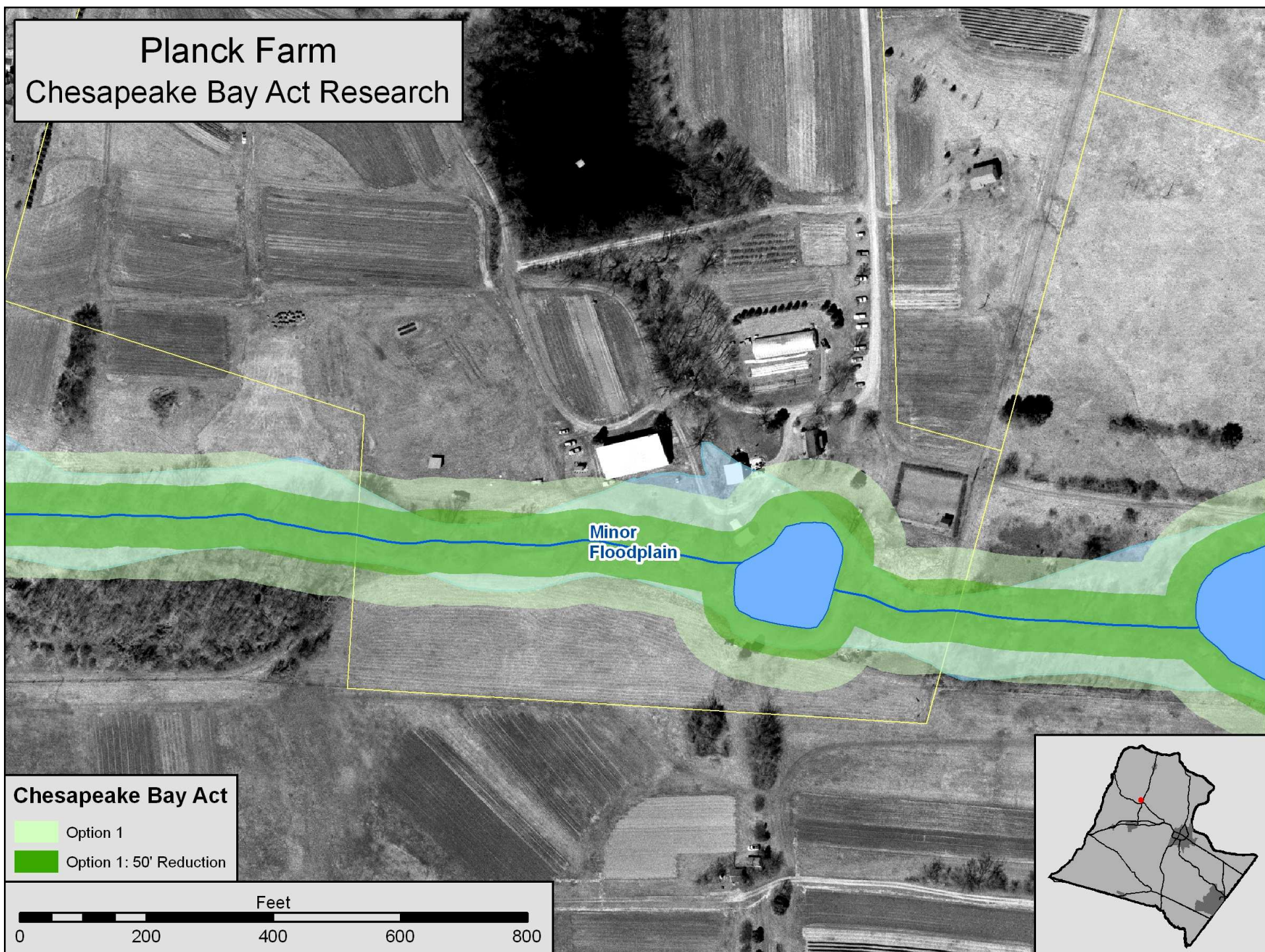
- Option 1
- Option 1: 50' Reduction





# Planck Farm

## Chesapeake Bay Act Research





# Private Residence Chesapeake Bay Act Research





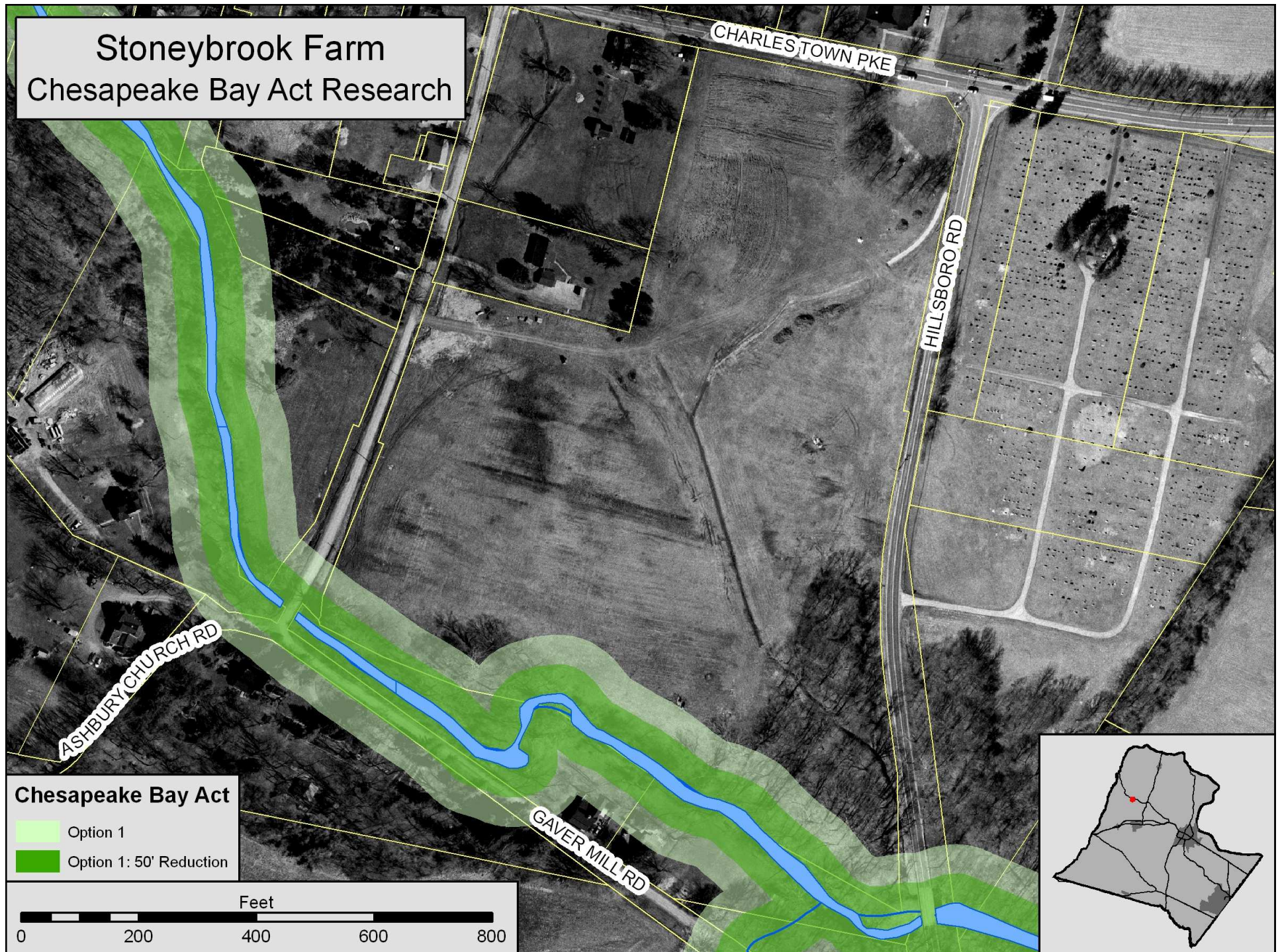
# Private Residence Chesapeake Bay Act Research





# Stoneybrook Farm

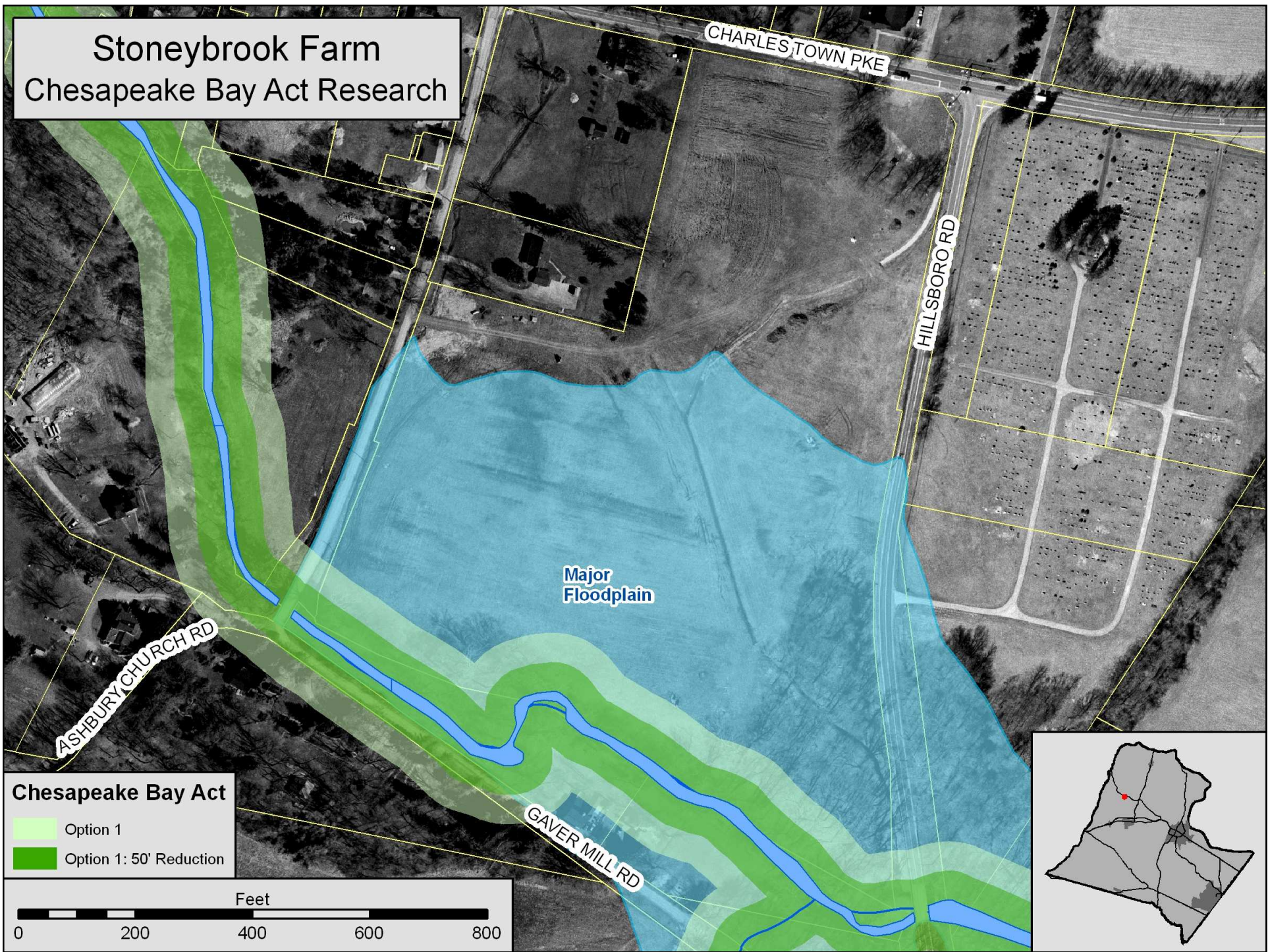
## Chesapeake Bay Act Research





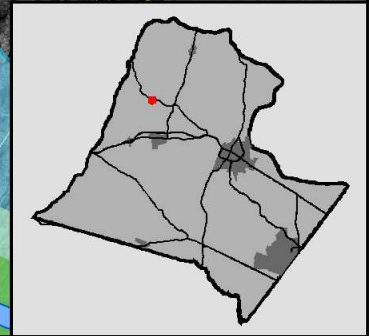
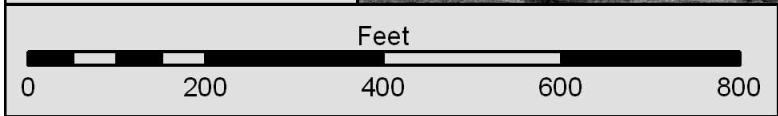
# Stoneybrook Farm

## Chesapeake Bay Act Research



**Chesapeake Bay Act**

- Option 1
- Option 1: 50' Reduction





# Summary

- **Staff Recommendation to the BOS:**
  - **Consider Adopting Chesapeake Bay “Option 1” (100’ buffer of Perennial Streams and connected wetlands)**
  - **Maintain existing FOD, SCVB, and Steep Slopes Regulations for protection of sensitive environmental features**

# BOS Direction to Staff

## ■ Board Business Meeting – April 7, 2009

- Approved Chesapeake Bay Preservation Act Work Program (“Option 1” 100’ buffer of Perennial Streams and connected wetlands)
  - April 2009-April 2010
- Approved Stakeholder Participant List, includes:
  - Rural Economic Development Council (REDC)
  - Agricultural District Advisory Committee (ADAC)
  - Loudoun Soil and Water Conservation District (SWCD)
  - Agricultural Summit Group
- Two Planning Commission Stakeholder Roundtables; one up front (May 20, 2009) and one after the draft map, ordinance amendments, and policies have been developed.





# Questions and Discussion